ENCLOSURE 2

MFN 10-154

TRACG04 ATWS Pre-Submittal Planning Presentation

Non-Proprietary Information

IMPORTANT NOTICE

Enclosure 2 is a non-proprietary version of Enclosure 1, which has the proprietary information removed. Portions that have been removed are indicated by open and closed double brackets as shown here [[ ]].

Non-Proprietary Information

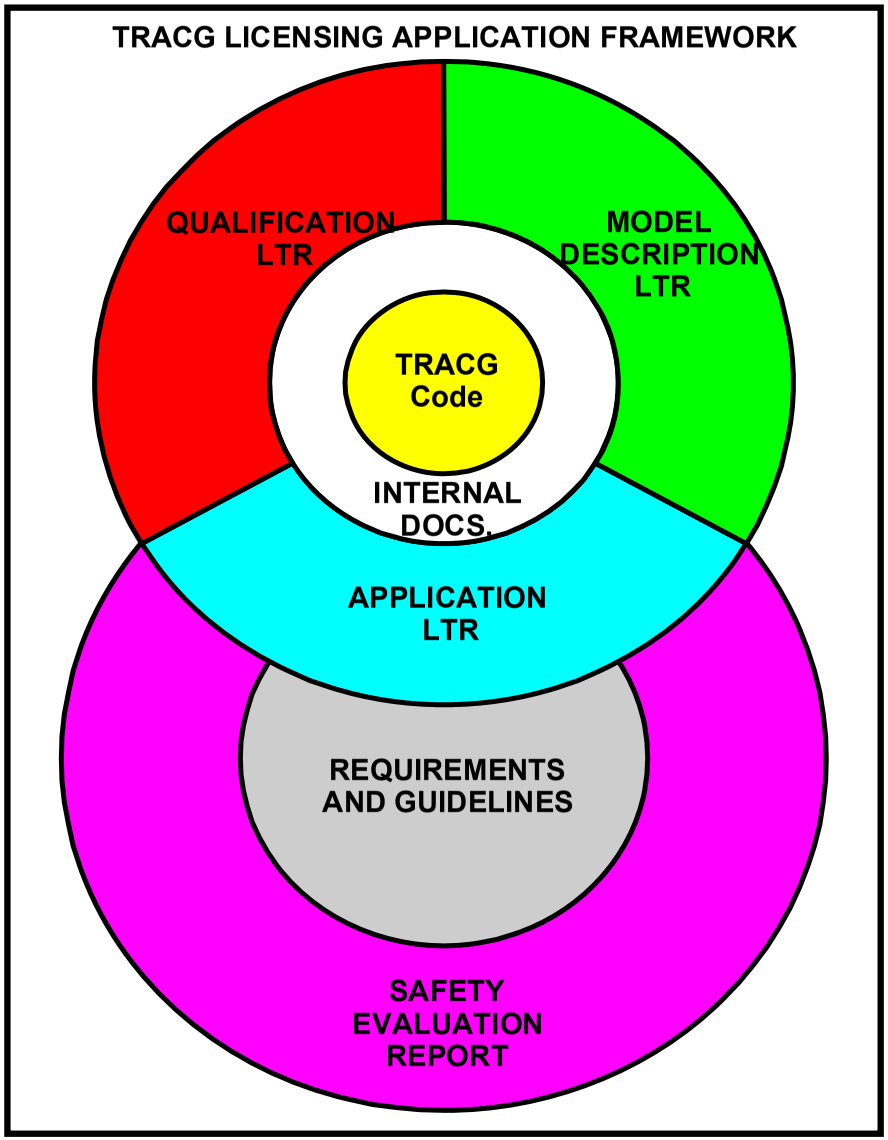
GE Hitachi
Nuclear Energy

TRACG BWR/2-6 ATWS LTR Planning Meeting

HITACHI

Objective

Communicate Scope and Plan and Validate NRC Expectations for TRACG ATWS Application LTR



Topics

- Scope of LTR
- Scenario specification
- Technical approach
- Submittal schedule

ATWS LTR Scope

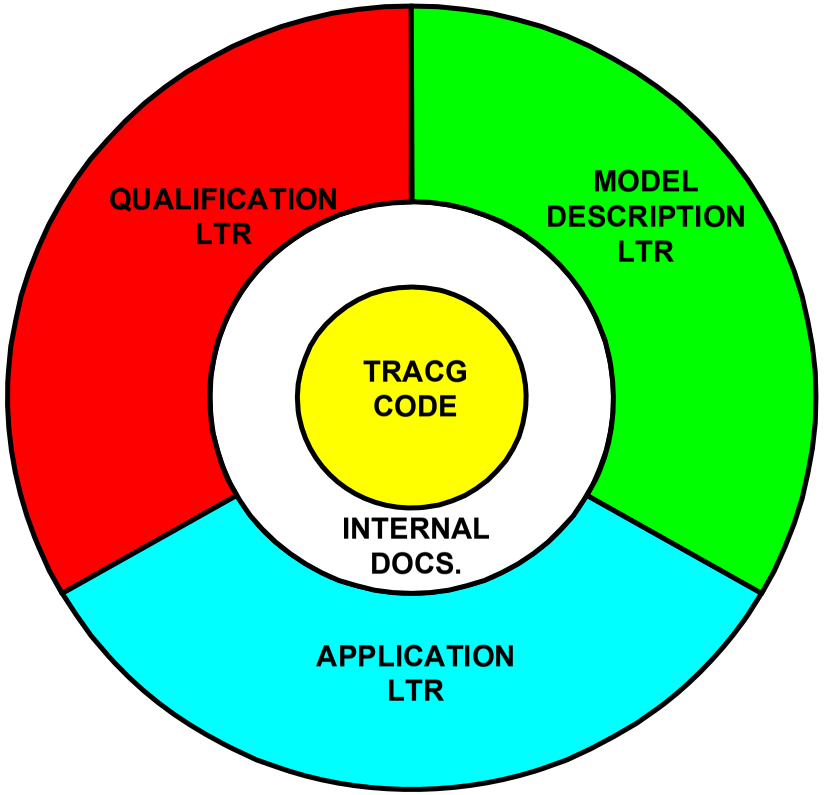
- Applicable to BWR/2-6 and EPU/M+ operation for ATWS and ATWSI
- Use TRACG04P (Model Description NEDE-32176P R4)
- Address M+ LTR SE, IMLTR SE and Migration to TRACG04 LTR SE conditions and limitations
- Follow SRP 15.8 Guidance and Acceptance Criteria
- Follow previous ATWS (ESBWR and Over-pressure LTRs) CSAU Based Methodology

Framework

Use Existing TRACG Code and Model Description

Revise Qualification LTR to add Boron Transport Qualification

Submit ATWS Application LTR



Historical Limiting Scenarios

ATWS (ELTR & M+ LTR)

- Main Steam Isolation Valve Closure (MSIVC)
- Pressure Regulator Failure Open (PRFO)
- Loss of Offsite Power (LOOP) with reduced RHR heat removal capacity

ATWSI (NEDO-32047 & M+ LTR)

- Turbine Trip with Bypass (TTWBP)
- Recirculation Pump Trip (RPT)

Qualitative assessment to validate limiting scenarios

CSAU Application to ATWS

- Overall CSAU approach consistent with NUREG/CR-5249
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Summary of TRACG Model Features and Assumptions for ATWS/ATWSI

Model Features:

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Assumptions:

- Operator action and timing consistent with EPG/EOPs (Including water level strategy and depressurization)

Boron Transport Model Benchmarking Plan

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- Update TRACG Qualification LTR (NEDE-32177P)

Pool Temperature/Pressure Calculation

- Same principles as STEMP code (Used with ODYN ATWS analysis)
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ATWSI Analysis Approach

- Obtain approval for generic ATWSI analysis to eliminate plant specific ATWSI limitation (M+ SE Limitation and Condition 12.19)
- GEH has provided plant parameter and nuclear characteristics to facilitate NRC confirmatory calculations
- Establish key plant parameter and nuclear characteristics to develop a reasonably bounding generic approach

Submittal Plan

Submit in Separate Volumes

- Volume I
  - CSAU steps common to ATWS and ATWSI
- Volume II
  - ATWS Methodology Demonstration
- Volume III
  - ATWSI Generic Solution